

TECHNOLOGY

Privacy Pitfalls as Education Apps Spread Haphazardly

By NATASHA SINGER MARCH 11, 2015

At school districts across the country, the chief technology officers responsible for safeguarding student data are tearing their hair out.

Scores of education technology start-ups, their pockets full from a rush of venture capital, are marketing new digital learning tools directly to teachers — many are even offering them free to get a foothold in schools. That has enabled educators nationwide to experiment with a host of novel “adaptive learning” products, like math and foreign language apps that record and analyze students’ online activities to personalize their lessons.

But the new digital tools have also left school district technology directors scrambling to keep track of which companies are collecting students’ information — and how they are using it.

“A teacher can sign up for anything, without the knowledge of anyone else in the district,” said Steve Young, the chief technology officer of the Judson Independent School District, a school system with some 23,500 students in San Antonio.

Already, some districts have experienced data breaches with software they purchased from vendors; in a few cases, student records have been publicly posted on the Internet. And online security researchers have discovered weaknesses in a couple of dozen popular digital learning services.

Some legal scholars contend that the practice of signing up teachers directly — rather than their school districts — skirts federal privacy laws. Administrators like Mr. Young say they want teachers to have free access to the best learning apps. Yet guarding against the potential pitfalls — data breaches, identity theft, unauthorized student profiling — is a herculean endeavor.

“It’s a huge challenge for big districts,” Mr. Young said, “and an even bigger

challenge for smaller districts.”

These concerns are likely to widen as education technology proliferates. Last year, the market for educational software aimed at prekindergarten through 12th-grade students amounted to nearly \$8.4 billion, up from \$7.5 billion in 2010, according to the Software and Information Industry Association, a trade group.

Yet, for now at least, each school district, of which there are more than 14,000 in the United States, is confronting these challenges and devising solutions on its own.

In the Fairfax County, Va., school district, technology experts have conducted their own security reviews of several hundred digital learning products, and failed a few of the most popular ones. In Houston, one of the largest districts in the country, administrators are testing their own rating system for digital learning products and developing a set of district-approved apps for teachers.

And in Raytown, Mo., Melissa Tebbenkamp, the school district’s director of instructional technology, vets every app that teachers want to try before allowing it to be used with students. Among other things, she checks to make sure those services do not exploit students’ email addresses to push products on them or share students’ details with third parties.

“We have a problem with sites targeting our teachers and not being responsible with our data,” Ms. Tebbenkamp said. For school technology directors around the country, she added, “it is a can of worms.”

The new tools are being pushed by a rapidly expanding education technology industry. Some educators, entrepreneurs and philanthropists are particularly enthusiastic about adaptive learning products because they aim to tailor lessons to the individual abilities of each student.

“If Suzy is good at long division but has trouble with division by zero, the software will show her more problems about division by zero,” said Umang Gupta, an entrepreneur who has invested in Front Row Education, an adaptive math start-up, and other educational technology ventures.

To get such products into classrooms quickly, many start-ups offer their basic products free to individual teachers, but charge for extra features or districtwide use — a “freemium” business model.

“This is an industry driven by the freemium model, and that’s a good thing,” said Betsy Corcoran, the chief executive of EdSurge, an industry news service and

research firm. “It is giving teachers more of a voice in the tools that they use.”

The model makes it easy for teachers to try new products, but it also troubles many school technology directors. By enticing teachers to adopt nascent technologies on their own, they say, companies can bypass established district procedures for reviewing the effectiveness and data security of educational software.

Teachers, these experts say, are typically not equipped to vet the data-handling practices of free educational apps that may collect details as diverse as students’ names, birth dates, profile photos, voice recordings, homework assignments, quiz scores or grades.

“When it comes to privacy and security, it’s a little unfair to put the burden on the teacher,” said Bob Moore, a former school district technology director who now runs his own educational technology consulting firm. Teachers, he added, may also not know whether the apps have been rigorously studied to establish their effectiveness.

“If you have a math app that focuses on dividing and multiplying fractions,” Mr. Moore said, “you should have some evidence that shows how it actually improves student learning around that particular objective.”

In addition, some education privacy law scholars say that the direct-to-teacher marketing model circumvents federal privacy laws.

One federal law, the Family Educational Rights and Privacy Act, requires school districts to maintain the confidentiality of student records and to keep control of those records even if administrators outsource certain school functions to vendors.

Another federal law, the Children’s Online Privacy Protection Act, allows schools to act in place of parents in allowing online providers to collect personal details from children. But the Federal Trade Commission recommends that schools not delegate that decision to individual teachers.

“Companies are soliciting teachers to breach the obligations of schools,” said Joel R. Reidenberg, a professor at Fordham University School of Law in Manhattan.

To help school administrators evaluate digital education services, the Department of Education recently issued best-practice recommendations for contracts. Last year, the Consortium for School Networking, an association for district technology professionals, introduced a free tool kit with data security questions for schools to ask their online service providers. And on Tuesday, a coalition of several dozen educational groups issued a set of principles for

responsible use of student data.

But Lenny J. Schad, the chief technology information officer of the Houston Independent School District, said that teachers were using so many different apps, sometimes trying them for no more than a week or even a day, that it was impractical, if not impossible, for districts to track their use.

“The teachers have the ability to reach out on a much bigger scale than anything that we could manage,” Mr. Schad said.

Mr. Moore, the education technology consultant, said district officials and technology companies might eventually need to develop national standards for the classroom adoption of learning apps.

“There needs to be a better system,” Mr. Moore said, “than each school district doing their own vetting.”

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